

DEVELOPMENT PLANNING
FOR A MAJOR WINTER RECREATION AREA

PREPARED FOR

PROFESSIONAL DEVELOPMENT PROGRAM
FOR OUTDOOR RECREATION MANAGEMENT

1982

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JANUARY 1983

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I. INTRODUCTION

The use of National Forest lands during the winter, for various forms of recreation, has come of age. This explosive growth has brought with it a number of problems as well as opportunities which require careful planning mixed with bold creativity. The end result of this planning can be measured in terms of recreation fulfillment for many and varied human needs.

This paper will be addressing a very specific parcel of land, approximately 4400 acres in size, located near the Idaho - Montana border, on the Gallatin National Forest, in the southern-most tip of the state of Montana.

This area has been selected for study because it possesses a unique mixture of desired winter recreation ingredients. These ingredients are (1) ideal snow properties, (2) rolling terrain interspersed with tree canopies and open areas, (3) beautiful scenery, (4) long season of use (October through April), (5) practical location situated at the west entrance to Yellowstone National Park, (6) growing demand by people wanting to enjoy the winter out-of-doors. It is these features which I hope to coordinate as I develop a plan for future use in this paper.

This area first started to receive cross-country ski use in 1977. Through the efforts of several individuals and organizations in the town of West Yellowstone, the use and development began to grow. A series of connecting loop ski trails were constructed in 1978. These trails consisting of a three kilometer loop, a five kilometer loop, a six and one-half kilometer loop, and an eight and one-half kilometer loop began to serve as the basic system of cross-country ski trails which eventually became known as the Rendezvous Ski Trail.

The grooming and maintenance of these trails was done through cooperative work between a local ski club, Montana Fish and Game Department, interested local individuals and the Forest Service. The following year, additional trail signs were installed, a small information map was printed and a warming hut was established. By now the news that a potentially superior area for cross-country skiing was available began to reach skiers of all classes in many parts of the country. As trail grooming continued on a sporadic basis, use continued to grow. The year 1979 brought the U.S. Olympic Cross-Country Ski Team to West Yellowstone because of early October snows, ideal dry snow conditions and high elevation (6700 feet) training grounds. It was also in 1979 that a number of other interests began to blossom. A scheduled program for skiing and instruction was established in the local grade school curriculum. The U.S. Biathlon Cross-Country Ski Team showed interest in both training and scheduling race events here. General public skiing for pleasure continued to grow.

The following year brought even more interest to the area. It was in 1980 that one of a series of races in the "Great American Ski Chase" was held here and this nationwide event has continued annually ever since with entries now exceeding 400 participants.

Various forms of cross country skiing have dominated this area for the past six years; however, recently another form of winter recreation use surfaced - that of dog sled racing. This most recent sport will be explored in future detail in this report, along with other forms of winter recreation.

We have learned from past experience that when major areas of the nation suffer from low snowfall accumulation, a greater number of users come to this area

because of the predictable amounts of ideal snow which the area receives even when the rest of the nation is suffering.

II. PROBLEM STATEMENT

The foregoing is a brief summary of the major uses currently taking place on a portion of the 4400 acres on National Forest land involved in this study. What has failed to take place along with this growth in use is the future planning, maintenance and coordination of these uses, as well as the lack of wherewithal to fund these needs.

Although growth has continued, the volunteer system of grooming the trails has fallen off, maintenance of the trails and signs has been on a catch-as-catch-can system, use records are sketchy, safety and patrolling in the area are totally lacking, expansion into adjacent areas is desired but has no direction for its growth, enforcement of regulations prohibiting motorized vehicles is lacking, protection of various wintering wildlife species from the winter recreationist has not been addressed, and coordination of other land management activities such as timber harvest and reforestation has not been fully thought out and projected into the future.

The problem can then be more simply summarized as a lack of comprehensive planning and coordination for the varied kinds and amounts of winter recreation activities presently occurring and for those projected into the future.

III. GOAL STATEMENT

The goal of this study is to identify the existing and potential needs and then to coordinate these needs or desires with the capabilities of the area for the

purpose of developing a plan for winter recreation use on the 4400 acres of National Forest land in question.

IV. BASIC ASSUMPTIONS

1. The study area in question is one hundred percent public land (National Forest) and will remain in that ownership.
2. While other factors of the economy may vary drastically up or down, recreation use will continue with a steady increase in spite of economic conditions.
3. We will continue to see an increase in both desire and use of public lands by the handicapped during the winter months.
4. Demand for forms of winter recreation for which we presently cannot predict or foresee are eminent.
5. Non-mechanized forms of recreation on public lands will increase.

V. COORDINATION

The Gallatin National Forest is located within Region I of the Forest Service system. In early 1981, the Regional Office prepared a report outlining the status of recreation use and needs in the National Forests of Montana, Northern Idaho, North and South Dakota; this report, entitled "Recreation Issue Statement," paved the way for R-1 direction in recreation management in the National Forest planning process. This report looked at recreation use on National Forest land and plotted this use to the year 2025 for both dispersed and developed recreation activities by geographic area. The report concludes that for the Gallatin

National Forest, both dispersed and developed recreation use is considerably below the capacity of the land and that in the case of dispersed use we will not reach capacity until the year 2025.

In the case of developed recreation, the capacity of the land will never be a limiting factor to use. (see appendix A)

The Region Forester has extracted from this "Recreation Issues Statement" a preferred alternative or set of standards and guidelines to be used in implementing forest planning. Highlighted here are those specific items related to that study. See appendix B for complete description of the "Preferred Alternative".

1. Through the programming and budgeting process, increase the relative emphasis on dispersed or non-structured recreation.
2. Upgrade recreation expertise: all professionals with primary recreation responsibilities complete the Recreation Shortcourse by 1984. Provide the necessary recreation skills on every Forest and all Districts with major recreation responsibilities by 1985.
3. Emphasize developed and dispersed recreation opportunities close to cities and towns, and near recreation destination centers or resort areas.
4. Initiate recreation programs in coordination with the recreation service/tourism industry to develop recreation destination package opportunities that:
(1) support the tourism industry and associated local communities, and (2) reduce automobile travel.

5. Identify modifications needed at recreation sites to make them accessible by elderly, handicapped, and other disadvantaged groups, and accomplish needed work by 1990.

This report gave further direction to the Gallatin National Forest in the form of management direction which was instrumental in establishing objectives and outputs for recreation management in the Gallatin National Forest Plan. Specifically, the Forest Plan gives the following guidance and direction to this study. (see appendix C)

RECREATION 1. Campgrounds and other developed recreation facilities will be constructed and managed to disperse recreation use across the Forest. Private investment on private land will be relied on to help meet the demand for more developed recreation. Forest Service investment will be necessary where there is no opportunity for private investment.

2. Consideration for the handicapped will be integrated into developed recreation facilities.

3. Dispersed recreation use will be managed to provide users with a wide range of opportunities.

4. A recreation management plan will set direction for areas that have been evaluated for carrying capacity and found to be at their limits of acceptable change. Priority for recreation management plans will be for areas where problems exist or arise due to conflicts between user groups or resource damage from heavy use.

FOREST OUTPUTS AND ACTIVITIES The following table lists the major outputs and activities that will be achieved under the Forest plan.

TABLE 11-1. Gallatin National Forest Outputs and Activities

Program Element	Units*	1982	1992	2002	2012	2022
& Activity	(Average Annual)	-1991	-2000	-2011	-2021	-2031
Developed Rec. Use	*	803	959	1,130	1,245	1,245
Dispersed Rec. Use	*	1,443	1,569	1,798	1,954	2,375

* Thousands of recreation visitor days.

The Forest Plan has also inventoried all the land within the forest boundary in terms of the "Recreation Opportunity Spectrum". This system expresses recreational opportunities in terms of three principal components: activity opportunity, setting opportunity, and the experience opportunity. It is the mix or combination of these three factors that give us a "spectrum" of land classifications - Recreation Opportunity Spectrum or R.O.S. These combinations are broken down into six classes: (G. Ballman)

RECREATION OPPORTUNITY SPECTRUM

	Semi-Primitive	Semi-Primitive	Roaded		
Primitive	Nonmotorized	Motorized	Natural	Rural	Urban

Using this system for delineating the study area, we find that over 95 percent of the area is classified R.N. or "Roaded Natural Appearing" and the remaining 5 percent is classified "Roaded Modified", or "Rural".

Even though most of the entire area is classified as "Roaded Natural Appearing", the area possesses the unique quality of being more of a semi-primitive nature for the purposes of this study. The reason for this is that in the winter months, the entire area is blanketed with five to six feet of snow. There are no plowed roads in the unit and there is only minor motorized over-the-snow use. This motorized use consists of grooming equipment and occasional over-the-snow vehicles for support in evacuation and administration of race events.

In an effort to give the reader a feeling for this area and the types of uses that could be compatible, a listing of opportunity class descriptions for both Semi-Primitive Motorized and Roaded Natural have been included in the appendix. (See appendix D)

All nine uses proposed in this study are compatible with the R.O.S. classifications.

The Gallatin Forest Plan continues to further stratify the land within the forest which possesses similar qualities and characteristics. In this case we find that the 4400 acre study area falls entirely within one specific management area. This management area is number 13, entitled "Grizzly Bear and Timber Management". When we take a closer look at the "Standards and Guidelines" for recreation management under this area, we find the following direction: (see appendix E for complete listing of management area #13).

Element	Management Practices	Standards and Guidelines
<hr/>		
RECREATION	Developed Recreation	A variety of developed recreation activities could be permitted. Some formal recreation

development could be enhanced with carefully planned and executed timber management activities.

Dispersed Recreation Close coordination with the Grizzly Bear Recovery Team will precede road or trail closures. Recreation activities may be restricted to reduce man/bear confrontations. Winter recreation use, for example cross-country skiing, could be designed to be compatible with grizzly bear requirements.

The hierarchical steps which have just been outlined form the direction and framework for planning on this study unit.

In summary, the framework to this point resembles the following outline:

Regional Plan

Recreation Issues Statement (Preferred Alternative)

Gallatin National Forest Plan (Standards and Guidelines)

Recreation Opportunity Spectrum

Management Area #13 (Grizzly Bear and Timber Management)

Recreation Element (Area Standards and Guidelines)

VI. METHODOLOGY

The development of this plan has two major facets: what are the capabilities of the land in question and its associated resources and what are the wants and needs of the users.

We have used two separate but related methods of trying to determine the needs and wants of the users. First we circulated a questionnaire specifically addressing the study area. Secondly, we followed up on the questionnaire by hosting a public workshop, again specifically to address the study area. The questionnaire dealt with the existing system of trails and possible facilities in the immediate area of the trails. The workshop on a broader range addressed management issues and the importance of these issues. A copy of the questionnaire and the workshop format are attached as appendix F. (Claude F. Moulin)

The tabulated results of both the questionnaire and workshop are as follows:

RESULTS OF QUESTIONNAIRE

RENDEZVOUS SKI AREA

(67 Responses to Questionnaire)

1. Number of days cross-country skied = Average 23 days (Range = 4 to 130 days)
2. Percent of time skiing Rendezvous Trails = Average 71% of total time spent skiing
3. Trails that need to be regularly groomed:

	<u>%Yes</u>	<u>%No</u>	<u>%No Response</u>
(1) 2½ kilometer	67	22	11
(2) 5 kilometer	80	9	11
(3) 7½ kilometer	82	9	9
(4) 10 kilometer	80	9	11
(5) 12½ kilometer	65	28	7

4. Trails that need to be occasionally groomed:

	<u>%Yes</u>	<u>%No</u>	<u>%No Response</u>
(1) 15 kilometer	87	7	6
(2) 25 kilometer	73	16	11

5. Allow Snowmobiles

	<u>%Yes</u>	<u>%No</u>	<u>%No Response</u>
(1) Snowmobiles allowed?	0	100	0

6. Parking Necessary at Trail Head

<u>%Yes</u>	<u>%No</u>	<u>%No Response</u>
85	15	0

7. Need for Warming Hut

<u>%Yes</u>	<u>%No</u>	<u>%No Response</u>
54	37	9

8. Signs Needed

	<u>%Yes</u>	<u>%No</u>	<u>%No Response</u>
(1) Directional	91	5	4
(2) Trail Junction	85	11	4
(3) Trail Name	80	13	7
(4) Trail Difficulty	74	22	4
(5) Distance	91	5	4

9. Should there be some trails that are not groomed and tracks set?

<u>%Yes</u>	<u>%No</u>	<u>%No Response</u>
36	53	11

If you answer yes, list the length these trails should be.

- (1) 50 kilometers one per month
- (2) 5-10 kilometer loops
- (3) 20 kilometers
- (4) Telemarking areas

10. Those willing to pay for groomed trails

<u>%Yes</u>	<u>%No</u>	<u>%No Response</u>
89	11	0

11. Additional needs for the area (not in order of priority)

- | | |
|---|------------------------------------|
| 1. Biathlon site | 16. "Pack In - Pack Out" signs |
| 2. Toilet facilities | 17. Nordic jump |
| 3. Wider trails | 18. Grooming schedule |
| 4. Trails around bad downhills | 19. Additional trailheads |
| 5. Double-tracked | (served by snowmobiles) |
| 6. Park closer to hill | 20. Different starts for short |
| (avoid flat of first 1 kilometer) | loop trails |
| 7. School should ski free | 21. Cabins every 50-100 kilometers |
| 8. Touring center | |
| 9. Concession stand | |
| 10. Sign GM cutoff | |
| 11. Trail down to South Fork River | |
| 12. Move trailhead to Convention Center | |
| 13. Trails to play areas | |
| 14. Lights for night skiing | |
| 15. More consistant grooming | |

IDENTIFICATION OF ISSUES

FOR THE RENDEZVOUS SKI AREA

- Results of Public Workshop -

(Results are ranked in order of priority)

1. Maintain groomed system by private organization and paid for by users
2. No snowmobiles
3. No off-road vehicles anytime
4. Longer loops than existing and groomed periodically
5. Expand existing trails with minimal environmental impact
6. No trapping
7. No hunting or firearms yearlong (exception is biathlon)
8. Maintain wildlife habitat
9. Widen existing trails to double track
10. Regular scheduled grooming
11. Maintain esthetic quality of area
12. Re-route South Plateau (snowmobile trail) - east boundary
13. No oil or gas leasing
14. Maintain existing environment (water quality)
15. Sign hiking trails
16. Remove dead trees and replant. Minimize number of roads.
17. Minimum facilities for seasonal users
18. If grooming becomes private, they have exclusive business rights at trailhead.
19. Timber harvest minimum with firewood cutting away for trails
20. Continue ski chase, ski team and encourage these groups
21. Controlled timber cutting should compliment ski trails

22. Chamber of Commerce should encourage cross-country skiing.
23. Longer trails (like 100 kilometers) for overnight trips with minimum facilities.
24. Condition trails so they can be used earlier in season.
25. No free use firewood cutting.
26. Add expert terrain and groom.
27. Enforce restrictions (i.e. snowmobiles).
28. Expand parking area.
29. Expand groomed area to the area used for biathlon.
30. Use Convention Center as trailhead.
31. Future changes should consider increased use.
32. No exclusive rights to any group - open to all.
33. No federal funds for development and maintenance.
34. No mandatory fees for any user.
35. Segregate areas (novice vs. racers) and provide area for each.
36. Need portable timing building for various events.
37. Consider safety first (cold in winter) (grizzly bear in summer).
38. Provide information hut at start.
39. No grizzly bears encouraged into area.
40. Biathlon should not conflict with day-to-day skiing.
41. Need nordic jump for ski flying.

In addition to the questionnaire and the public workshop, we have also incorporated some data from a recent survey of cross-country skiers in the state of Montana conducted by the Montana Department of Fish, Wildlife and Parks. This survey gives a little broader scope to our survey data base. The results of the statewide survey are as follows:

SUMMARY

OF

MONTANA STATEWIDE

CROSS-COUNTRY SKI QUESTIONNAIRE

(Survey sent to 51, respondents - 36)

1. Percent that ski off trails (free ski):

<u>1</u> never	<u>27</u> occasionally	<u>8</u> most often	<u>0</u> always	<u>36</u> Total
<u>3%</u>	<u>75%</u>	<u>22%</u>		

2. Percent that ski unmarked trails (user established trail):

<u>0</u> never	<u>28</u> occasionally	<u>8</u> most often	<u>0</u> always	<u>36</u> Total
	<u>78%</u>	<u>22%</u>		

3. Percent that ski marked, but ungroomed trails:

<u>0</u> never	<u>28</u> occasionally	<u>7</u> most often	<u>0</u> always	<u>35</u> Total
	<u>80%</u>	<u>20%</u>		

4. Percent that ski groomed trails:

<u>1</u> never	<u>14</u> occasionally	<u>21</u> most often	<u>0</u> always	<u>36</u> Total
<u>3%</u>	<u>39%</u>	<u>60%</u>		

5. Percent that ski in competition:

<u>14</u> never	<u>14</u> occasionally	<u>8</u> most often	<u>0</u> always	<u>36</u> Total
<u>39%</u>	<u>39%</u>	<u>22%</u>		

6. Cross-country ski services which are needed:

47% 17 building parking lots

72% 26 plowing parking lots

81% 29 plan and lay out new trails

75% 27 mark trails

78% 28 print and publish a ski guide to existing trails

36% 13 skier safety training

64% 23 groomed trails

53% 19 track set trails

- 1 - services not required in all areas
- 1 - lighted trails
- 1 - education to prevent skier-snowmobile-wildlife problems;
- 1 - private industry should provide
- 1 - coordination of group tours:

7. Percent desiring a skier revenue collection system:

<u>28</u> Yes	<u>3</u> No	<u>5</u> No Response
78%	1%	22%

8. Number of times that individuals went cross-country skiing in 1981 =

Average 39

9. Percent of time skiing with family or friends:

<u>0</u> never	<u>6</u> occasionally	<u>25</u> most often	<u>8</u> always
	17%	69%	22%

10. Average size of cross-country ski group: 4.35

11. Average number of miles skied on each occasion = 9.57 miles

12. Average number of miles driven (one way) to cross-country ski area = 34.21

A picture is now beginning to form as to some of the needs and desires of cross-country skiers in the West Yellowstone area and generally around Montana. However because this area draws a fair percentage of its users from outside the state and from metropolitan areas, it is also important to look at skier characteristics on a national level. The following summary weighs some of the characteristics of skiers from rural, urbanizing and urban areas:

Median length of time spent skiing = 95 minutes

Median group size = 2.0

Median skiing experience = 2.8 years

Predominant Occupations (% in each):

Professional	48
Technical	9
Student	11
Homemaker	9
Other	23

Skier Preferences and Constraints

- A. The element that most greatly influenced increased skier satisfaction was good snow conditions.
- B. The element that most greatly influenced decreased skier satisfaction was poor trail conditions.
- C. The element that most greatly influenced the choice of ski areas was overall convenience to the skier. The element of convenience far outranked all other factors such as: trail layout, design, natural amenities, etc.
- D. The element that was least constraining to most skiers was fees charged for skiing.

(C.K. Smith) Tables #1 and #2 (Appendix G)

When we look at nationwide winter recreation use and focus on how it relates to federal lands, we see some of the following trends:

People between the ages of 30-44 show the highest use (31%), closely followed by the age group 21-29 (28%). These figures change drastically when compared to summer-based recreation.

When looking at the level of education completed by those experiencing winter-based recreation on federal lands, we see that the majority are college graduates (41%), closely followed by high school graduates (38%).

The annual incomes of those people making the greatest use of federal lands during the winter fall into the class of \$15,000 to \$24,999 (29%), followed by the class above (\$25,000 - \$49,999) and below (\$10,000 - \$14,999) which each show eighteen percent use.

The division between sexes in winter-based recreation use lists males at sixty-six percent and females at thirty-four percent. The division between races shows whites making ninety-five percent of the use, blacks two percent and two percent other.

The time spent for enjoyment of the winter recreation site varies from thirty-five percent spending four hours to one day, to twenty-five percent staying overnight or longer, to nineteen percent staying two to four hours, to sixteen percent spending zero to two hours. (J.D. Peine) Table #3 and #4 (Appendix H)

I believe that we have begun to develop a picture of the type of people that we will be trying to serve through the development of this study. We have heard from them in several questionnaires and have talked and listened to them at workshops.

Now that we have a feeling for the needs and desires of the user, we need to begin looking at what the land in question and its associated resources can offer.

VII. IDENTIFICATION OF CONFLICTS AND OPPORTUNITIES

The key to developing this area for winter recreation use will be trying to coordinate the needs or desires of the user with the capability of the land and its resources.

A brief description of the study area should help focus on some of the potential conflicts and opportunities. In addition to being 4400 acres in size and located in south central Montana at an elevation of approximately 6700 feet, the study area has the following additional physiographic and geographic characteristics:

The area is bordered on its north and west boundaries by the recently abandoned Union Pacific Railroad line, which during its prime carried thousands of visitors to the west entrance of Yellowstone National Park. In addition to the abandoned railroad line, the western boundary is also shared by a single-lane gravel road which parallels the railroad as well as the South Fork of the Madison River which in turn parallels both the road and the railroad line.

The boundary to the east of the unit is the Madison Plateau Road, a single-lane dirt road leading from the town of West Yellowstone to the Idaho-Montana border.

The southern boundary is a line which marks the junction of the Madison Plateau (7000 feet in elevation) with the Madison River basin (6700 feet in elevation). It is this river basin area, comprised of black obsidian sand soils, supporting a dense stand of slow-growing, small-to-moderate-diameter lodgepole pine and Douglas-fir trees, that constitutes the bulk of the study area.

The terrain in the area is composed of rolling hills with numerous man-made openings in the tree canopy as a result of various timber harvest operations in the past. Small dirt roads are interconnected throughout the area. Tree plantations varying in height from one foot to forty feet give the area a patchwork mosaic appearance from the air.

There are two main streams in the area; the South Fork of the Madison River located along the west boundary and Whiskey Creek located in the southern half of the unit. Both streams support fish.

At its closest point, the study area lies less than one airline mile from Yellowstone National Park. The last several years have shown a flurry of interest in the area by natural gas and oil development firms as well as those wishing to explore for geothermal steam. The area does lie in a known geothermal resource area.

The area supports a situation II classification for Grizzly Bear Management, which tells us that this area is important to the bear but is not an area of his primary use. Mule deer and elk also frequent this area as they pass from Yellowstone Park to more mesic sites west of the study area.

Moose are perhaps the only big game animal that use the area all year long. The area also supports a healthy population of furbearers, including martin, mink, beaver and weasels.

We will begin looking at the resources involved by listing those activities which are currently occurring in the area plus those which we can reasonably

expect to surface in the next ten-year period. This list will include only those things which might affect winter recreation use in the area:

1. Maintenance and repair work on 115 KV powerline located along the west boundary of the study area. This work would require motorized over-the-snow access to the line.
2. There exists a possibility that activities proposed on the West Yellowstone School Forest, which is an area involving a cooperative agreement between the Forest Service and the West Yellowstone School District to conduct research and management activities on 1500 acres of National Forest land located partially on the northwest corner of the study area, may conflict with winter recreation use here.
3. Within the study area are hundreds of acres of land which have received various forms of timber removal over the past thirty years. Management of these harvested lands varies from initial tree planting of a replacement timber stand to thinning of overstocked plantations. These activities are on-going and can be anticipated to be an active part on the management of this area in decades to come.
4. West Yellowstone, Montana has listed itself as the snowmobile capital of the world. Whether this is true or not is immaterial; however it does point out the fact that snowmobiling is very important to the community and surrounding area. Snowmobiles are now capable of conquering most all types of terrain and snow conditions; consequently one can expect to see a snowmobile most anywhere and any time during the winter months in the West Yellowstone area.

It is not the intent of this paper to explore why snowmobiles, cross-country skiers, dog sleds, etc., do not mix well when all stacked together; that point has been well documented. I intend to concentrate on the central issue which

most cross-country skiers agree on and that is that some degree of separation between these users is necessary, whether it be a separation of time or space or both. (E.L. Jackson and R.A.C. Wong 1982)

5. The western boundary of the study area runs parallel to the South Fork of the Madison River for about four miles. The river and its associated lush riparian bottom lands provide the necessary habitat for several wintering Bald Eagles as well as many other wildlife species. The critical wintering, nesting, and incubation period runs from November through July.

6. Located in the south central portion of the unit is a snow monitoring station which consists of a snow measurement course fifty yards long and twenty yards wide. In addition there is a computerized snow measurement system which consists of electronic data gathering snow depth, wind velocity, wind direction, snow density, water content, and temperature. This system and the area adjacent to it cannot tolerate much disturbance.

7. We stated earlier that there has been keen interest in the mineral resources of the area. There has however been no active exploration or development of those resources to date. There are approximately 3700 acres of gas and oil under lease within the 4400 acres being studied for winter recreation use. Geothermal leasing has been prohibited to date because it is unknown what effects the extraction of this resource would have on the thermal features of Yellowstone National Park.

8. Moose, deer and elk hunting is relatively popular in the area because of its easy road access during the fall hunting season. However, hunter success is rather low for deer and elk because of the transient nature of the game population. Moose hunting is by permit only, and is usually quite good because of the ease of stalking a moose. Hunting season begins in October and ends usually about December 1. The trapping of furbearers starts in October

and ends in March depending on the species being sought.

9. The final category of potentially conflicting uses is that related to the harvest of timber. In the past the area has seen the removal of large quantities of pulpwood, sawlogs, fence post, and fence pole material.

With the recent mountain pine beetle epidemic and its disastrous effect on mature lodgepole pine trees, we are experiencing a rapid die-off of all lodgepole pine trees seven inches in diameter and larger. This has in turn promoted high interest in the removal of these dead trees for firewood, both for commercial and individual home use.

Future timber harvest operations are planned for the area, primarily to bring these stands under management for future fiber production and in an attempt to change the age and species structure and thereby prevent future massive attacks by various forest insects and disease on a large single-age, single-species stand.

The grizzly bear, which is addressed in the management guidelines, is a very real concern in the study area; however the period for which the bear uses this area begins in May and ends in early October. There is almost no overlapping use between the grizzly bear and winter recreation use of any kind. To the best of our knowledge this area does not have any denning or hibernation sites. Grizzly bear activity has been monitored for the past ten years through the use of radio-collared bears and tracking telemetry and no evidence has been found of winter bear use in the study area.

Now that the potential for conflict with winter recreation has been summarized, we need to review the opportunities and desires for the area and to recall specific user needs.

1. Cross-Country Ski School (All Levels)

The following minimums are desirable:

- A. Adequate parking area
- B. Ski equipment rental and sales
- C. Certified ski instructors for all levels of skiing expertise
- D. Minimum of 10 kilometers of groomed trails with double-set tracks
- E. Open, level area without set tracks for outdoor classroom
- F. Rolling terrain with slopes varying from 0% to 25%
- G. Sound and sight separation from all other Forest activities
- H. Easy access from parking area to instruction area
- I. Safety from natural and man-made hazards (for example avalanche areas, logging trucks)
- J. Minimum shelter for waxing skies and warming
- K. Well-marked trails and signing of all hazards and precautions
- L. Liability and medical insurance
- M. Minimum of 8 - 10 inches of snow
- N. Trail maintenance (logging out)
- O. No live stream crossings except over bridges
- P. Trails designed to have one-way flow of traffic

2. Nordic Jump and Telemark Area

The following minimums are desirable:

- A. Rolling terrain with slopes varying from 15% - 40%
- B. Means for mechanical grooming of jump area
- C. Area free from stumps, rocks, etc.
- D. Safety from natural and manmade hazards (avalanche areas, power lines, etc.)

- E. Minimum of 18 inches of snow
- F. Adequate parking and access to the jump site
- G. Spectator viewing area
- H. Construction of jump ramp and run-out area

3. Cross Country Racing

The following minimums are desirable:

- A. Marshalling area (10 acres of level open ground for start, finish area)
- B. Mechanical grooming and track setting
- C. Multi-track setting for start areas
- D. Up to 100 kilometers of groomed trails and set tracks
- E. Coordination with all potential conflicting uses i.e., snowmobiles, road crossing, pleasure skiers, etc.
- F. Adequate spectator viewing areas
- G. Adequate parking
- H. Timing and race results headquarters building
- I. Warming building (before and after races)
- J. Feed stations along course
- K. First aid and evacuation facilities
- L. Rolling terrain with slopes varying from 0% - 25%
- M. In the case of biathlon races - a safely located small bore target range within the confines of the race course itself and 5 to 7 kilometer loop trails
- N. Distance markers and hazard signing
- O. Spotters along race course to check racers for fatigue, frostbite, etc.
- P. Radio communication between all feed stations, first aid stations, spotters and the start-finish headquarters

- Q. Liability and medical insurance
- R. Public address system
- S. Minimum of 8 to 10 inches of snow
- T. No live stream crossings except over bridges
- U. Trail maintenance
- V. Trails designed for one-way flow of traffic
- W. Safety from all natural and man-made hazards (guy lines on power poles, road crossings, etc.)

4. Olympic and Biathlon Training Grounds

The following minimums are desirable:

- A. Minimum of 25 kilometers of groomed trails with set tracks
- B. Double track settings
- C. Rolling terrain with slopes varying from 0% to 25%
- D. 6000 feet elevation or greater course site is desired
- E. Biathlon site requires a small bore target range within the confines of race course
- F. Biathlon site requires varying 5 to 7 kilometer loop trails
- G. Distance markers and hazard signing
- H. Timing equipment
- I. Coordination with all potential conflicting uses i.e., hunters, trap lines, snowmobiles, logging operations, etc.
- J. Training headquarters
- K. Adequate parking and access to groomed trails
- L. Minimum of 8 to 10 inches of snow
- M. No live stream crossing except over bridge crossings
- N. Trails maintenance requiring the removal of all logs, limbs, stumps

down to ground level. Because training starts in October when snow accumulations are sparse, maximum utilization must be made of snow that is available. There is not enough snow to cover over irregularities in the trail; therefore the trail must be completely cleared out.

- O. Waxing hut
- P. Trails designed for one-way traffic
- O. Safety from natural and man-made hazards i.e., stray bullets during hunting season

5. Dog Sled Training and Racing Grounds

The following minimums are desirable:

- A. Minimum of 12 kilometers of groomed packed trail 8 feet in width
- B. Long tangent curves or turns in the trail
- C. Holding areas for feeding and bedding dogs down
- D. Sanitation control for dog litter
- E. Timing equipment for race events
- F. Radio communications between check points on the trail during race events
- G. Flat to gentle rolling terrain with 0% to 8% slope
- H. Large spectator viewing areas along course route
- I. No bare roads or highway crossing along course route
- J. No stream crossing except over bridges
- K. Minimum of 4 inches of packed snow
- L. Coordination with all potential conflicting uses i.e., power lines and guy wires, snowmobiles or skiers using the same trail, etc.
- M. Start-finish area directly adjacent holding area for dogs
- N. Holding area must have easy and adequate parking for vehicles and trailers

- O. Distance markers and hazard signing
- P. Public address system at start-finish location
- Q. All trails designed for one-way traffic

6. Citizens' Cross-Country Skiing

The following minimums are desirable:

- A. Adequate parking
- B. Ski equipment rental and sales
- C. Minimum of 10 to 15 kilometers of groomed trails and set tracks
- D. Sections of double set tracks
- E. Rolling terrain with slopes varying from 0% to 25%
- F. Sound and site separation from most all other Forest activities
(snowmobiles, oil drilling rigs, logging operations, etc.)
- G. Minimum of 8 to 10 inches of snow
- H. Easy access from parking to trail heads
- I. Trails designed through occasional open areas which afford the skier a
view of pleasing natural surroundings
- J. Safety from natural and man-made hazards, i.e. (provide for alternate
route around steep hills, avoid or provide for safe crossing of roads
or snowmobile routes)
- K. Minimum shelter for waxing skies and warming
- L. Well marked trails and signing of all hazards and precautions
- M. Trail maintenance (logging out)
- N. No live stream crossings except over bridges
- O. Coordination with all other Forest activities in the immediate area
- P. All trails designed for one-way traffic

7. Handicapped Cross-Country Skiing

This section pertains to several classes of handicapped. The visually and mentally handicapped and those with moderate cases of physical disability are all candidates for cross-country skiing.

The following minimums are desirable:

- A. Wide (10 to 12 foot) well-groomed trails with distinct set of deep tracks
- B. Good trail maintenance - no over-hanging limbs or brush
- C. No water crossings
- D. Gentle terrain 0% to 5% slopes (avoid hills)
- E. Wide easy turns
- F. Large, frequently spaced trail markers
- G. Handicapped skiers should not be separated from the general skiing public; however double sets of tracks should be groomed to allow faster skiers to safely move around and past slower traffic
- H. No crossing or intersection of roads or other trails
- I. All trails designed to have traffic flow in one direction
- J. Easy and close access from parking area to trail head
- K. Warming hut
- L. Any signing should be in braille as well as standard lettering
- M. No hazards - natural or otherwise
- N. Ski equipment rental shop
- O. Sight and sound separation from most other Forest activities
- P. Snow depth of at least 8 to 10 inches
- Q. Minimum of 10 kilometers of groomed trails with shorter loops to accommodate those with less stamina
- R. Coordination with all other Forest activities in the immediate area

(J.R. Pitzer, May 1974)

8. Touring Center

The following minimums are desirable:

- A. Adequate parking area
- B. Lodging accommodation adjacent to the area
- C. Food service adjacent to the area
- D. Ski equipment rental and sales adjacent to the area
- E. Certified ski instructors and organized ski school for all levels of skiing expertise
- F. Regularly groomed trails with double tracks set
- G. Minimum of 25 kilometers of varying type trails
- H. Rolling terrain with slopes ranging from 0% to 25%
- I. Ample expansion area for increased volume of business
- J. Waxing hut
- K. Warming hut
- L. Nordic jump and telemark area
- M. Sound and sight separation from most other Forest activities
- N. Safety from natural and man-made hazards i.e., avalanches, etc.
- O. No live stream crossings except over bridges
- P. Regularly scheduled trail maintenance
- Q. Liability and medical insurance
- R. Full time attendant
- S. Check in-check out system for skier safety
- T. Fully coordinated schedule of events to allow for continuation and growth of the existing grade school ski program, Olympic and Biathlon training and racing programs, Great American Ski Chase race, and dog sled races
- U. All trails designed for one-way traffic

- V. Toilets provided on trails over 25 kilometers in length
- W. Minimum snow depth of 8 to 10 inches
- X. Trails designed through occasional open areas which afford the skier
a view of pleasing natural surroundings
- Y. Well-marked trails and signing of all hazards and precautions

VIII. FORMULATION OF ALTERNATIVES

This section will deal with arraying the various systems or alternatives that could provide the desired wants and needs for winter recreation. These alternatives will also show the various forms of coordination which must take place to make each use compatible with the affected resource and various existing activities in the study area.

Alternative #1 "All Volunteer"

This alternative will weigh each of the nine expressed needs or desires against the thirteen constraining resources and activities, using a strictly volunteer work force and volunteer equipment and materials to accomplish the goal.

Nordic jumping and telemark skiing would require the steeper sloping ground located midway and at the extreme south end of the study area where slopes are in excess of twenty-five percent and where there are zero to forty percent slopes extending over several hundred meters. (Telemark skiing is the sport of downhill skiing, on steep ground, with Nordic equipment.)

The area used for telemark runs would require little or no attention, except perhaps for signing hazards. Construction of a Nordic jump site would be a major undertaking and could only happen with a great deal of private capital. Design, construction and maintenance would all have to be closely supervised.

Winter access to these two areas would require either plowing snow on five miles if existing road or over-snow travel. Individuals could cross-country

ski to these sites; however, it would require from forty-five minutes to one and one-half hours to reach them. Anything short of plowing out vehicle access to the Nordic jump site would almost completely eliminate spectator participation in this event. Maintaining a plowed road five miles long would exceed several thousand dollars in annual cost.

A third option does exist for accessing the southern boundary of the unit for telemark skiing. Skiers could travel the existing South Plateau snowmobile trail via snowmobile to the upper edge of the plateau. Here they would unload and ski the north facing slopes down to the junction of the study area and the snowmobile trail and repeat the trip to the top via snowmobile. Before this option could become a reality, there would first have to be some major timber clearing to provide ample room for the ski runs.

Cross-country ski school could operate with volunteer instructors. There is no guarantee that the instructors would be certified or what level of instruction they would be capable of teaching. The instruction area would require terrain of various degrees of difficulty which can be found in the currently used northern portion of the unit. This option would require that at least five to ten kilometers of trail be groomed after each major snowstorm.

Parking could take place off Obsidian Avenue directly adjacent to the north boundary of the study area, provided that the city of West Yellowstone continues to voluntarily plow out additional space along the street.

Ski rentals and sales can be obtained from ski shops in town.

There would be no provision for handling any type of insurance for either the skier or the instructor.

Cross-country ski trail design, maintenance, marking, signing and enforcement of rules (i.e., prohibiting snowmobiles) would all fall at the mercy of each individual user or volunteer organization.

Dog sled racing could be provided for on terrain currently being used by cross-country skiers. All grooming, signing, layout, race organization and equipment would have to be done through citizen volunteer efforts.

Liability insurance would be mandatory for the racers, with a clause co-insuring the USDA Forest Service.

Spectators viewing areas and holding areas for the dog teams and their support systems could be accommodated along Yellowstone Avenue which is adjacent to the race area on National Forest.

A safety plan for the race course, as well as coordinating all activities during the race - for example, snowmobiles, skiers, vehicles, etc. which might conflict with the race must be reviewed on the ground and approved by the Forest Service for all activities occurring on the Forest.

Cross-country skiing for the handicapped requires wider trails, more consistent grooming, larger and more frequent signing and some basic design difference from those trails used by the average citizen skier. It is highly unlikely that a purely volunteer system could provide these features on a regular and reliable basis.

The Olympic and Biathlon training needs have proven to be too great to be cared for strictly by volunteer efforts. A minimum of twenty-five kilometers requires continual grooming and care over a period of eight weeks beginning in late October. The rifle range which is used in conjunction with the Biathlon training and racing events has been partially assisted through volunteer help in design layout and maintenance; however, the National Guard has been the major contributor of target frames, targets, timing equipment and sponsorship of races. The Olympic and Biathlon teams both pay to have their training sites professionally groomed.

Citizen cross-country skiing, which is the sport of the majority of the skiers, requires many of the same features as does a ski school operation. Grooming trails, setting tracks, signing, logging out downfall, providing parking areas, varying terrain, etc., are all basic and can occur through volunteer efforts. The degree of pleasure, safety and convenience can all vary greatly when pursued through a volunteer system. Past experience has shown that the degree of reliability that the above-mentioned basic needs will be performed on any kind of a scheduled basis is very poor.

The development of a touring center is contrary to a program of volunteerism, and will be discussed under the Concessionaire alternative.

Cross-country ski racing has operated and grown under the direction of a purely voluntary group of dedicated local residents. Each year the skiing interests grow and the tasks become greater, planning becomes more involved and coordination and logistics have become an almost full-time job.

Needless to say, the area lends itself well to racing and the participants are eager to return here each year; however the number of people available to perform all the necessary tasks is either less or more difficult to muster each year. The future of purely voluntary supported racing events is becoming more questionable each year. It has only been in the last year that commercial sponsors have been willing to help defray some of the costs associated with liability insurance, prizes, and sanctioning fees for the United States Ski Association. The local voluntary race organization is still in the process of attempting to pay back to USSA the sanctioning fees for 1980, 1981, and 1982 races.

In summary, alternative #1, VOLUNTEERISM could provide ski racing, citizen skiing and a ski school at a low level of operation and telemark skiing and dog sled racing to a medium level of operation. In order for these five activities to take place, varying degrees of coordination and mitigation with the thirteen listed concerns is necessary. (see table #1) (also see table #5)

ALTERNATIVE #1 (VOLUNTEERISM)

TABLE #1

	TIMBER HARVEST	SILVICULTURE WORK	HUNTING	TRAPPING	GAS & OIL DEVELOPMENT	GEO THERMAL	GRIZZLY BEAR	MOOSE	BALD EAGLE	SNOWMOBILES & ORV'S	SCHOOL FOREST	POWER TRANSMISSION LINES	SNOW COURSE	POTENTIAL LEVEL OF OPERATION (LOW - MEDIUM - HIGH)
NORDIC JUMP	X	X			X	X		X	X	X			X	
TELEMARK	X	X			X	X		X	X	X			X	MEDIUM
SKI SCHOOL	X	X		X	X	X		X	X	X	X	X	X	LOW
DOG SLEDS	X	X			X	X		X	X	X	X	X		MEDIUM
HANDICAPPED SKIING	X	X		X	X	X		X	X	X	X	X		
OLYMPIC & BIATHLON	X	X	X	X	X	X	X	X	X	X	X	X	X	
CITIZEN SKIING	X	X		X	X	X		X	X	X	X	X	X	LOW
TOURING CENTER	X	X	X	X	X	X	X	X	X	X	X	X	X	
SKI RACING	X	X			X	X		X	X	X	X	X		LOW

X INDICATES POTENTIAL FOR CONFLICT

===== INDICATES RECREATIONAL ACTIVITY
===== REVIEWED UNDER THIS ALTERNATIVE

Alternative #2 "Forest Service Cooperative Venture with Volunteers"

This alternative will also weigh the needs and desires against resource and activity constraints. In this case we will be looking at the possibilities of shared responsibilities between the Forest Service and various volunteers. Here it can be assumed that the Forest Service could perform some or all of the following functions: (1) act as the coordinator between conflicting uses of the same piece of land for the same period of time (2) assist in performing maintenance on the trails and signs (3) provide some of the signing (4) provide radio communications for safety purposes during special events (5) provide some degree of enforcement of rules governing motorized use in the area (6) assist in the repair of grooming equipment, for example providing shop space and tools (7) provide for the short term loan of some equipment for special events i.e., tents, wood stoves, snow shoes, etc.

The task of routine daily maintenance, grooming and track setting would be that of the volunteer group. Manpower for intensive jobs such as organizing and staffing for large race events would also be a volunteer effort. Routine equipment maintenance and procurement of fuel would also fall under volunteer responsibilities.

Using the foregoing division of labor as a guideline for performance and operation, we could expect to see telemark skiing taking place at a medium level of operation, ski schooling at a low level, dog sled racing at a medium level and Nordic jumping non-existent. To this point we have paralleled that of an all-volunteer operation.

In the areas of citizens' skiing and ski racing it is conceivable that these operations could be improved from a low level of operation under an all volunteer force to a medium level of operation with the assistance of the Forest Service as a cooperator. The increase in operational ability would come from the fact that the Forest Service could offer a greater degree of coordination and safety from other conflicting land uses occurring in the Forest. They could also assist in the enforcement of off-road vehicle restrictions, in the purchase and installation of safety and directional signs, and in pre-season maintenance of trails in preparation for grooming. Communications and loan assistance of various physical goods (i.e., tents) could be made available for special events as a result of Forest Service cooperative assistance.

So far under alternative #2 we have addressed the same five winter recreation activities as in alternative #1. The only difference so far has been a slightly increased degree of operational ability.

A sixth activity could surface under this second alternative, that of skiing for the handicapped, since Forest Service assistance could be used to widen and make trails safer, and to purchase and install special signs including braille signs for the blind or partially blind.

On a project-by project basis, the Forest Service could take on the construction of special trails which would be over and above the needs of the general skiing public. Because most all of the Forest Service's participation would have to be on a relatively flexible basis, given the variation of annual budgets and direction, we can only rate this additional activity, handicapped skiing, as having a low level of operational potential. (See table #2 for summary of activities in this alternative and the potential for conflict.) (Also see table #5)

ALTERNATIVE #2

FOREST SERVICE COOPERATIVE VENTURE WITH VOLUNTEERS

TABLE #2

	TIMBER HARVEST	SILVICULTURE WORK	HUNTING	TRAPPING	GAS & OIL DEVELOPMENT	GEOTHERMAL	GRIZZLY BEAR	MOOSE	BALD EAGLE	SNOWMOBILES & ORV'S	SCHOOL FOREST	POWER TRANSMISSION LINES	SNOW COURSE	POTENTIAL LEVEL OF OPERATION (LOW - MEDIUM - HIGH)
NORDIC JUMP	X	X			X	X		X	X	X			X	
TELEMARK	X	X			X	X		X	X	X			X	MEDIUM
SKI SCHOOL	X	X		X	X	X		X	X	X	X	X	X	LOW
DOG SLEDS	X	X			X	X		X	X	X	X	X		MEDIUM
HANDICAPPED SKIING	X	X		X	X	X		X	X	X	X	X		LOW
OLYMPIC & BIATHLON	X	X	X	X	X	X	X	X	X	X	X	X	X	
CITIZEN SKIING	X	X		X	X	X		X	X	X	X	X	X	MEDIUM
TOURING CENTER	X	X	X	X	X	X	X	X	X	X	X	X	X	
SKI RACING	X	X			X	X		X	X	X	X	X		MEDIUM

X INDICATES POTENTIAL FOR CONFLICT

===== INDICATES RECREATIONAL ACTIVITY

===== REVIEWED UNDER THIS ALTERNATIVE

Alternative #3 "Chamber of Commerce Sponsorship and Leadership"

We have made several basic assumptions under this alternative which vary from alternatives #1 and #2.

First, it is assumed that the Chamber of Commerce would not be making an outright charge for the use of this winter recreation area. Second, it is assumed that they could and would act as the clearing house for all gifts and donations directed toward these winter activities. Thirdly, it is assumed that the Chamber of Commerce could actively pursue donations under a system of sharing the cost of operation from the benefitting commercial businesses. Specifically, the following system could apply:

Because the town of West Yellowstone is heavily oriented toward recreation and tourism, it is reasonable to assume that those merchants profiting either directly or indirectly from any of these nine recreational winter activities would be responsive toward assisting in the operation and maintenance of these programs.

The Chamber could develop a system of assessing each hotel and motel operator a given amount for each bed, restaurant and cafe operators a set amount for each seat and various other indirect benefactors - for example, service stations - a given flat fee based on the degree of business received. The Chamber of Commerce would produce a winter sports patch (embossed emblem) which could be produced for a minimum charge and allocated to each of the donating merchants for them to sell at their individual businesses for a profit. The profit made from the sale of the patches would act as partial or total reimbursement of their cash donation to the winter recreation system, depending on how aggressive they were in selling their allotted number of patches.

Assuming that the Chamber of Commerce can develop an income structure to support non-motorized winter recreation, be it from gifts, donations through the "fair share system" plus any public grant funds, we have made the following assessment of its potential level of operation. (see summary table #3)

All of the activities addressed in the Forest Service Cooperative Venture with Volunteer (alternative #2) are still feasible here plus the addition of the Olympic and Biathlon training area. This activity now becomes a reality because the Chamber has control of all grooming equipment for snowmobile trails. It is this same equipment that is fully capable of meeting all the requirements for grooming and maintaining the twenty-five plus kilometers of trails needed to have a successful training program. Up until now this grooming has been leased or performed with the Olympic team's own equipment. Under this alternative the Olympic and Biathlon teams could pay the Chamber directly for all their grooming needs.

Also under this alternative we see the chance for a substantial improvement in the potential level of operation. We now could have a permanent organization and staff based adjacent to the study area, which has the capabilities of long range planning, coordination with other activities, control of major pieces of grooming and maintenance equipment plus possibly the mechanism for acquiring finances to direct these seven winter recreational activities at a high level of operation, with no direct cost to the individual user. (see table #3 for summary of activities in this alternative and the potential for conflict)

(also see table #5)

ALTERNATIVE #3

CHAMBER OF COMMERCE SPONSORSHIP & LEADERSHIP

TABLE #3

	TIMBER HARVEST	SILVICULTURE WORK	HUNTING	TRAPPING	GAS & OIL DEVELOPMENT	GEO THERMAL	GRIZZLY BEAR	MOOSE	BALD EAGLE	SNOWMOBILES & ORV'S	SCHOOL FOREST	POWER TRANSMISSION LINES	SNOW COURSE	POTENTIAL LEVEL OF OPERATION (LOW - MEDIUM - HIGH)
NORDIC JUMP	X	X			X	X		X	X	X			X	
TELEMARK	X	X			X	X		X	X	X			X	HIGH
SKI SCHOOL	X	X		X	X	X		X	X	X	X	X	X	MEDIUM
DOG SLEDS	X	X			X	X		X	X	X	X	X		HIGH
HANDICAPPED SKIING	X	X		X	X	X		X	X	X	X	X		HIGH
OLYMPIC & BIATHLON	X	X	X	X	X	X	X	X	X	X	X	X	X	HIGH
CITIZEN SKIING	X	X		X	X	X		X	X	X	X	X	X	HIGH
TOURING CENTER	X	X	X	X	X	X	X	X	X	X	X	X	X	
SKI RACING	X	X			X	X		X	X	X	X	X		HIGH

X INDICATES POTENTIAL FOR CONFLICT

===== INDICATES RECREATIONAL ACTIVITY
===== REVIEWED UNDER THIS ALTERNATIVE

Alternative #4 Concessionaire

This alternative has the potential of providing all nine recreational activities described within this study. It also has the potential to provide activities which at this time have not as yet surfaced. Funding would be by means of an admission fee for individual users. This alternative makes the assumption that any concessionaire would not only permit but encourage additional public racing and spectator events, whether it be ski racing, dog sled racing, or whatever. These events would be open to the spectator public at no admission cost. Participants would also be encouraged with entry fees no larger than necessary to cover the concessionaire costs for administering, organizing and physically caring for the needs of the participants.

This alternative assumes that the concessionaire could provide lodging and food service, merchandise, ski sales and rentals, groceries and liquor as well as ski instruction. This alternative also assumes that lodging, food service, sales and rental facilities, etc. would be housed on private lands adjacent to the area. The only permanent structures within the study area would be a ski jump and associated structures, warming hut or huts and other facilities directly related to the on-course needs of the skier. The safety and well being of the user would be foremost in considering additional on-site needs for structures and facilities. All electrical and basic utility needs would be buried.

It is further assumed that the current cross-country ski instruction program which is a portion of the school curriculum for grade school students be encouraged by the concessionaire. This is regarded as a most important community effort; groomed trails must be made available to the school system under either

the current, free status or an alternate system which is agreeable to the school and the concessionaire.

It is also understood that this alternative is fully capable of meeting all the features described in alternative #3.

This alternative does vary for the preceeding three, insomuch as this is the only one which would operate under a formal charge system, therefore necessitating a formal working agreement with the Forest Service under a "Term Special Use Permit". This permit would under the "graduated rate fee system," spell out the conditions for payment to the government for various types of concessions. The concessionaire would be required to carry public liability insurance.

In addition to the special use permit itself, an annual safety and operations plan would be required. The safety plan would address such things as first-aid, communication, general safety, accident reporting, rescue operations, signing, and building fire protection. The annual operations plan would address sanitation, planned development work for the season, design criteria and landscape, and road and access needs.

Operation under this permit would be open to inspection by the Forest Service for strict compliance with the conditions of the permit. (See table #4 for summary of activities in this alternative and their potential for conflict.)
(Also see table #5)

The direction shown in the Forest Service manual for Winter Sports Concessions (2342.03) encourages year-round recreation use; however, after having assessed the need for such activities which might lend themselves to this area-i.e.

CONCESSIONAIRE

TABLE #4

	TIMBER HARVEST	SILVICULTURE WORK	HUNTING	TRAPPING	GAS & OIL DEVELOPMENT	GEOTHERMAL	GRIZZLY BEAR	MOOSE	BALD EAGLE	SNOWMOBILES & ORV'S	SCHOOL FOREST	POWER TRANSMISSION LINES	SNOW COURSE	POTENTIAL LEVEL OF OPERATION (LOW - MEDIUM - HIGH)
NORDIC JUMP	X	X			X	X		X	X	X			X	HIGH
TELEMARK	X	X			X	X		X	X	X			X	HIGH
SKI SCHOOL	X	X		X	X	X		X	X	X	X	X	X	HIGH
DOG SLEDS	X	X			X	X		X	X	X	X	X		HIGH
HANDICAPPED SKIING	X	X		X	X	X		X	X	X	X	X		HIGH
OLYMPIC & BIATHLON	X	X	X	X	X	X	X	X	X	X	X	X	X	HIGH
CITIZEN SKIING	X	X		X	X	X		X	X	X	X	X	X	HIGH
TOURING CENTER	X	X	X	X	X	X	X	X	X	X	X	X	X	HIGH
SKI RACING	X	X			X	X		X	X	X	X	X		HIGH

X INDICATES POTENTIAL FOR CONFLICT

INDICATES RECREATIONAL ACTIVITY

REVIEWED UNDER THIS ALTERNATIVE

jogging trails, bike trails, archery range, rifle range, etc. - it has become apparent that there was no expressed desire or need for such activities in this area on a commercial basis. In addition to lack of need, many additional conflicts surface between competing resources when the area is viewed with spring, summer and fall use in mind. An example of such a conflict would be the many interconnecting roads which exist in the summer but which in the winter are covered by five or six feet of snow and only those roadways needed for ski trails are groomed and the remaining ones appear as natural openings on the landscape.

The following table (table #5) lists all the resources discussed and assesses each against all nine of the potential conflicting uses. The various mitigating measures range from no conflict to strict timing and coordination between uses and resources, however, in no instance is there a "no go" or diametrically opposed situation. The final analysis for determining the most desirable or preferred alternative will be accomplished by means of "Selection Criteria". A system of weighing the various criteria and alternatives is shown below.

IX. SELECTION OF THE PREFERRED ALTERNATIVE

An interdisciplinary team approach was made in selecting the preferred alternative. The following table is a rating of each alternative against the evaluation criteria given by the interdisciplinary team. First, a weight was given to each criterion, (5) being most important, (1) being least important. A rating of 1 through 5 was given to each alternative depending on how well it met the evaluation criterion, a rating of (5) meaning the alternative best meets the criterion, and (1) meaning the alternate least meets it. (Table #6)

[illegible]

TABLE #6

	ALTERNATIVE #1 VOLUNTEER	ALTERNATIVE #2 FOREST SERVICE COOPERATION VENTURE WITH VOLUNTEERS	ALTERNATIVE #3 CHAMBER OF COMMERCE	ALTERNATIVE #4 CONCESSIONAIRE
SELECTION CRITERION				
PROVIDE GREATEST BENEFIT (SOCIAL & (4) FINANCIAL) TO WEST YELLOWSTONE	(1) <u>4</u>	(3) <u>12</u>	(4) <u>16</u>	(4) <u>16</u>
REQUIRES THE LEAST TIME & FINANCIAL INVOLVE- (3) MENT BY THE GOVERNMENT	(5) <u>15</u>	(2) <u>6</u>	(4) <u>12</u>	(4) <u>12</u>
PROVIDES THE GREAT- EST OPPORTUNITY (2) FOR THE HANDICAPPED	(1) <u>2</u>	(2) <u>4</u>	(4) <u>8</u>	(5) <u>10</u>
PROVIDES THE HIGHEST ABILITY TO PRODUCE (5) THE DESIRED WANTS AND NEEDS	(2) <u>10</u>	(3) <u>15</u>	(5) <u>25</u>	(5) <u>25</u>
WILLINGNESS TO PERFORM (3)	(2) <u>6</u>	(3) <u>9</u>	(4) <u>12</u>	(5) <u>15</u>
LEAST COST TO THE USER (3)	(5) <u>15</u>	(5) <u>15</u>	(4) <u>12</u>	(1) <u>3</u>
TOTAL SCORE	<u>52</u>	<u>61</u>	<u>85</u>	<u>81</u>

This numerical rating system should only be used as a guide to show variation and magnitude between alternatives; it is not intended to be used as the absolute criteria for selecting the preferred alternative.

The conclusion that can be drawn from table #6 is that there is a relatively close comparison between alternatives #1 and #2, and similarly between alternatives #3 and #4. The major differences between these two groups of alternatives is that the latter goes farther toward fulfilling the wants and desires of the users as was expressed initially in the public workshops. Also, because alternatives #3 and #4 have the potential to draw more users to the area, we see the financial benefits to the community being considerably greater than in alternatives #1 and #2.

The greatest positive benefit of alternatives #1 and #2 is that they provide free skiing. However, when we look at the reactions and input from various skiers, both locally and from distant municipalities, we find that free skiing is not one of their high or important criteria.

Well groomed trails located in pleasing surroundings with varying degrees of amenities seems to be what the skier is looking for. These features are better provided for in alternatives #3 and #4.

This study has dealt with Nordic jumping throughout, and the activity is realized in alternative #4; however, before a conclusion is reached it must be emphasized that this activity, even though it surfaced in our public workshops, has consistently rated very low in the ranking of needs and desires by the public. Therefore we have rated this activity very low in terms of its weight as it appears in alternative #4.

Telemark skiing on the other hand is a fast growing sport and the emphasis for providing appropriate areas for this activity is high and is so reflected in all four alternatives.

In the final analysis we feel that both alternatives #3 and #4 are prudent and feasible for future management of the area. It is also conceivable that a mixture of options between alternatives #3 and #4 could produce the desired results.

It is our recommendation that the Forest Service continue to work with and involve the West Yellowstone Chamber of Commerce in reaching some form of agreement in initiating alternative #3. If this option is not feasible then the Forest Service should move on to alternative #4.

The time table for this action, should be very soon. If the Forest Service and the Chamber of Commerce cannot reach a workable solution by May 31, 1983, then alternative #4 should be pursued.

There have been several parties interested in applying for a special use permit for concessionaire operation of the area. If the Chamber of Commerce elects not to become involved, then a "prospectus" outlining the needs and desires for the area and the minimum acceptable limits of operation should be prepared and advertised in June of 1983.

Every attempt should be made to have an agreed-upon plan of operation for the study area by July of 1983. Whether it be the Chamber of Commerce, a concessionaire or some combination thereof, it is important that the operator have

sufficient time during the summer months to plan, design, construct and generally prepare for a late October-early November opening date.

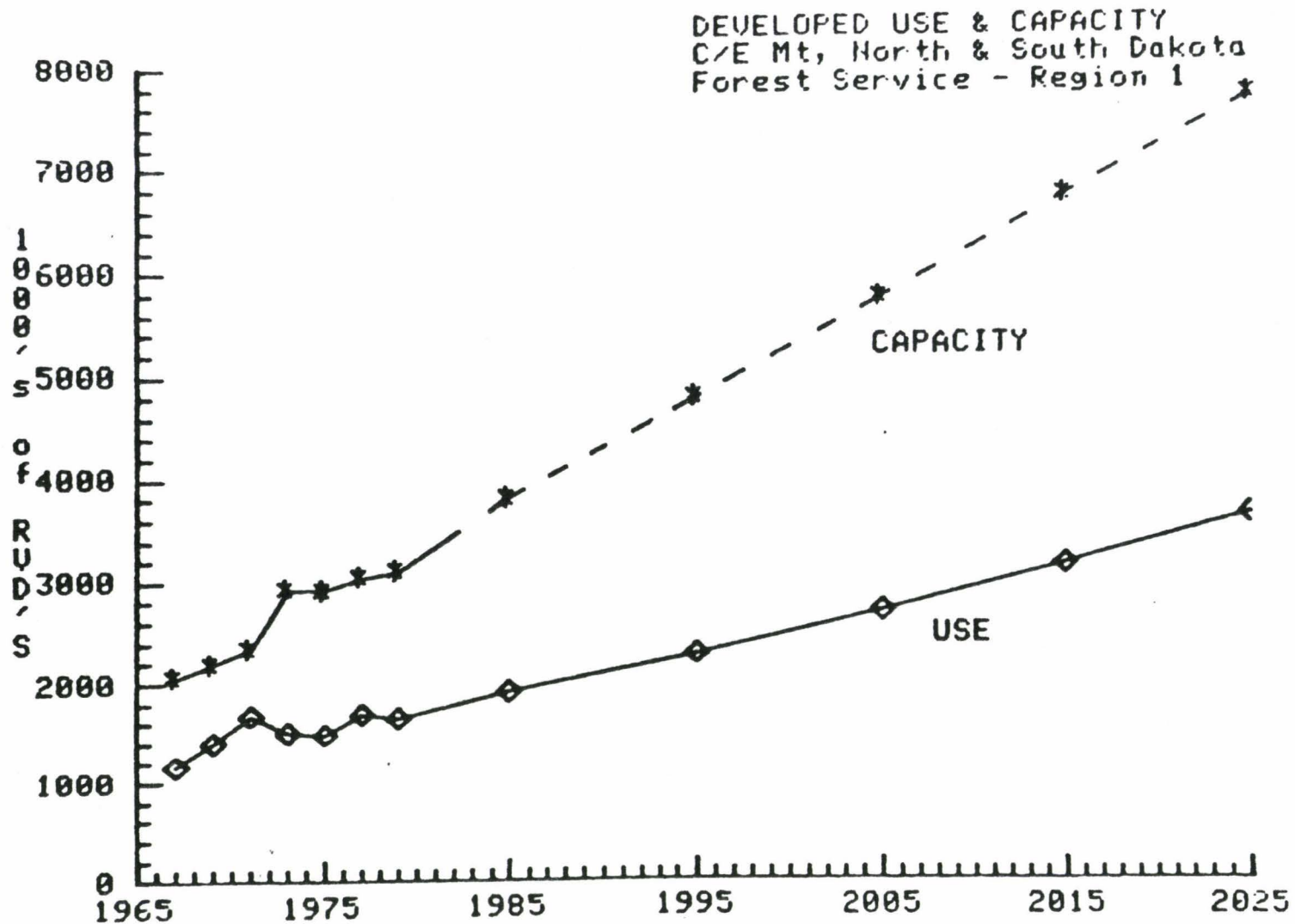
It is also understood that the 1983 season will be the beginning of a long partnership with the Forest Service as the landlord and a second party handling all maintenance and operations. Growth is expected to be moderate at first. However, given the size of the area, ideal snow conditions and the opportunity to promote and expand, it is anticipated that use will grow steadily.

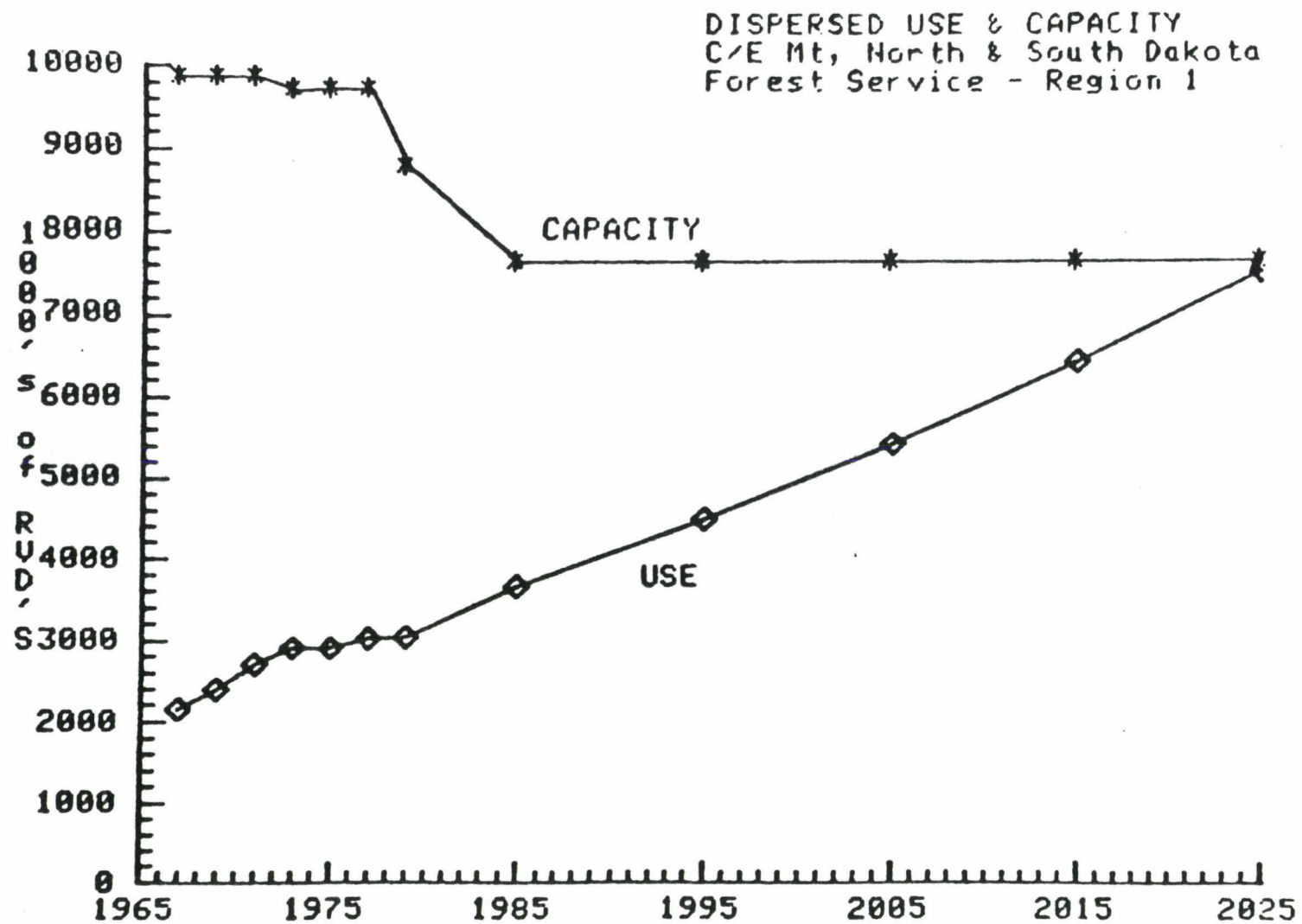
This paper has purposely avoided dealing with the actual layout and design of the physical structures and trails system on the ground. The intent here has been to evaluate public needs and coordinate them with the resources on the ground, so as to structure a means for providing the desired recreational opportunities.

In an effort to lend some assistance to the next phase, that of physically developing the site, we have included in this study under appendix I, entitled Reference Material for Layout and Development of Cross-Country Ski Systems, a biographical listing of research papers dealing primarily with designing a cross-country ski system.

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AREA
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ANN ARBOR, MICHIGAN





7. Develop and implement Forest VIS plans to (1) increase public understanding of Forest Service management activities, (2) increase public awareness of goods, services, and opportunities available to them, and (3) encourage less energy consumptive recreation activities.

8. Identify modifications needed at recreation sites to make them accessible by elderly, handicapped, and other disadvantaged groups, and accomplish needed work by 1990.

9. Add developed site capacity only in locations and for opportunities where use greatly exceeds capacity.

VIII. CONSULTATION WITH OTHERS

Analysis of the Northern Region recreation issue was accomplished with the assistance of the following Forest Service people and groups, and after consideration of public response to the Regional Plan Issues Booklet:

Regional Planning Core Team
Regional Planning Alternatives Team
John B. White
Kerry J. McMenus
David E. Browder
Terry L. Raettig
Elizabeth M. Toczek
Harry L. Siebert

IX. ISSUE WORK GROUP

<u>Participant</u>	<u>Job Title</u>	<u>Education or Degree</u>	<u>Applicable Work Experience (years)</u>
William A. Worf	Director, Recreation and Lands	B.S.	33
Oran Barr	Forester	B.S.	23
Wendell Beardsley	Forester	Ph.D.	19
Edmund C. Neumann	Civil Engineer	B.S.	23
George Stankey	Research Social Scientist	Ph.D.	12
William J. Weeks	Economist	Ph.D.	15
Norman W. Wulf	Forester	B.S.	8

VII. IDENTIFICATION OF THE PREFERRED ALTERNATIVE

A. Preferred Alternative

Alternative A is inferior to B and C on all criteria, and is therefore rejected.

Although alternative B is a significant improvement over the current management direction, it only partially resolves the issues and management concerns and does not satisfy the decision criteria as fully as does alternative C.

Alternative C is superior to A and B on all criteria, and is therefore the preferred alternative. Implementing this alternative will change management direction to emphasize dispersed recreation management, VIS and visitor contacts, promote energy conservation, and support the tourism industry. In addition, this alternative will effectively deal with the identified public issues and management concerns, including minimizing adverse economic impacts on local communities and complementing recreation programs of other agencies. It is also the most cost-effective alternative to implement.

B. Standards and Guidelines for Implementation

The following standards and guidelines will help implement the preferred alternative:

1. Through the programing and budgeting process, increase the relative emphasis on dispersed recreation.

2. Complete the trail assessment, identify maintenance and reconstruction needs, and accomplish backlog work by 1990. Maintain all trails at standards prescribed in the assessment.

3. Upgrade developed site facilities: eliminate the maintenance and rehabilitation backlog in RIM Facility--Condition classes 3 and 7 by 1985, and classes 4-6 and 8 by 1990.

4. Upgrade recreation expertise: all professionals with primary recreation responsibilities complete the Recreation Shortcourse by 1984. Provide the necessary recreation skills on every Forest and all Districts with major recreation responsibilities by 1985.

5. Emphasize developed and dispersed recreation opportunities close to cities and towns, and near recreation destination centers or resort areas.

6. Initiate recreation programs in coordination with the recreation service/tourism industry to develop recreation destination package opportunities that: (1) support the tourism industry and associated local communities, and (2) reduce automobile travel.

FOREST
OUTPUTS AND
ACTIVITIES

The following table lists the major Forest outputs and activities that will be achieved under this Plan.

TABLE 11-1. Gallatin National Forest Outputs and Activities

Program Element & Activity	Units*	1982 -1991	1992 -2000	2002 -2011	2012 -2021	2022 -2031
Developed Recreation Use	MRVD	803	959	1,130	1,245	1,245
Dispersed Recreation Use	MRVD	1,443	1,569	1,798	1,954	2,075
Wilderness Management	Acres	706,580	706,580	706,580	706,580	706,580
Wildlife & Fish Management Improvement	Acres	2,126	2,126	2,126	2,126	2,126
Elk Capability	Elk	5,600	5,600	5,600	5,600	5,600
Catchable Trout	M Trout	1,553	1,553	1,553	1,553	1,553
Programmed Timber Sale Offered	MMBF	21.1	23.2	23.5	24.5	30.3
Timber Stand Improvement	Acres	3,220	1,680	1,476	2,128	2,356
Reforestation	Acres	3,202	2,780	2,460	3,150	2,960
Water Yield**	M AC FT	2,005	2,018	2,028	2,028	2,028
Mineral Activities	Cases	40.0	X	X	X	X
Livestock Grazing Use	M AUMs	44.9	49.9	50.0	50.0	50.0
Fuel Treatment	Acres	2,000	2,521	2,390	2,858	2,896
Soil & Water Resources Improvement	Acres	50	27	0	0	0
Road Construction (Collector)	Miles	10.4	10.4	10.4	0	0
Road Construction (Locals)	Miles	8.8	12.5	16.6	16.0	17.1
Trail Construction	Miles	8	8	8	8	8
Returns to Treasury	M \$	919	1,471	2,263	3,530	3,896
Total Budget Required***	M \$	5,536	5,469	5,573	5,515	5,706

*For definition of abbreviated units see Glossary

**Water yield meeting water quality goals.

***Shown in constant 1978 dollars.

STANDARDS AND
GUIDELINES

The Forest management direction established in this Forest Plan is expressed in this chapter in terms of forestwide standards and guidelines and, in the following chapter, standards and guidelines for specific management areas. The direction contained in these two chapters is intended for emphasis and to supplement, not replace, National and Regional policy.

Recreation
GENERAL

1. Campgrounds and other developed recreation facilities will be constructed and managed to disperse recreation use across the Forest. Private investment on private land will be relied on to help meet the demand for more developed recreation. Forest Service investment will be necessary where there is no opportunity for private investment.
2. Some existing sites that have low use will be closed or consolidated with other sites.
3. There is additional capacity for downhill skiing now available at Bridger Bowl, Big Sky, and Ski Yellowstone. Expansion of existing areas will be emphasized to meet increasing demands before giving consideration to new proposals in other areas.
4. Consideration for the handicapped will be integrated into developed recreation facilities.
5. Dispersed recreation use will be managed to provide users with a wide range of opportunities.
6. The recreation carrying capacity of heavy-use areas inside and outside wilderness will be determined. (See Appendix A for the procedure to use

GENERAL
(Cont.)

In determining carrying capacity.) If the limits of acceptable change in specific areas are exceeded, any number of actions could be taken. These include improving existing facilities, controlling or restricting use of the area, dispersing use to other areas, or apportioning use between different types of users.

7. Hunting outfitter and guide service days will generally be maintained at 1981 levels. Applications for outfitting and guiding, other than for hunting, will be considered. Any adjustments as a result of exceeding the limits of acceptable change will be shared by both outfitted and non-outfitted users.
8. A recreation management plan will set direction for areas that have been evaluated for carrying capacity and found to be at their limits of acceptable change. Priority for recreation management plans will be for areas where problems exist or arise due to conflicts between user groups or resource damage from heavy use.
9. It is anticipated that authorization of most existing recreation residences will continue into the foreseeable future. Each Ranger District with summer homes will conduct an assessment of all the homes based upon recreational needs of the land, conflicts with other uses, environmental inputs, health and safety, and administrative needs. Based on the assessment, recreation residence permits will either be extended to the year 2010 or recommended for termination in the year 2000. A recommendation for termination would have to be made by 1990. The assessment by each District will be completed by December 1987.
10. Recreation residences will not be allowed to exceed 1500 square feet of floor space. Total square footage of all existing buildings on any recreation residence lot in excess of 1,500 square feet will be allowed to remain. New construction in excess will be permitted only if needed to correct serious health or safety problems. This approval will be with the Forest Supervisor.
11. The Madison River Canyon Earthquake Area, designated as a special geological area in 1960, will be managed to:
 - a. Preserve the natural features associated with the earthquake for both scientific and general interest.
 - b. Provide facilities for the use, safety, and enjoyment of the area.
 - c. Encourage multiple use of all National Forest resources of that area consistent with the preservation of the geological feature.

VISUAL
QUALITY

1. The adopted visual quality objectives will provide the guidelines within which landscape altering activities in the various management areas will operate. Environmental assessments and project design should detail how the adopted objectives will be met. If the VQO cannot be met, Forest Supervisor's approval will be needed. Maps of the adopted VQO are available at the District or Supervisor's Office for review.

CULTURAL
RESOURCES

1. Inventory known sites and define protection.
2. Prior to any significant ground disturbing activities, an investigation for possible sites will be conducted and mitigating actions prescribed.
3. Submit sites that have been determined to be eligible for inclusion in the National Registry of Historic Places.

Experience Opportunities*

Semi-Primitive	Roaded
Motorized	Natural
<p>Moderate probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility, and self-reliance through the application of woodsman and outdoor skills in an environment that offers challenge and risk. Opportunity to have a high degree of interaction with the natural environment. Opportunity to use motorized equipment while in the area.</p>	<p>About equal probability to experience affiliation with other user groups and for isolation from sights and sound of humans. Opportunity to have a high degree of interaction with the natural environment. Challenge and risk opportunities associated with more primitive type of are not very important. Practice and testing of outdoor skills might be important. Opportunities for both motorized and non-motorized forms of recreation are possible.</p>

ROS

ACTIVITY OPPORTUNITIES*

Semi-Primitive	Roaded
Motorized	Natural
Viewing Scenery	Viewing Scenery
Hiking	Hiking
Cross-Country Ski Touring	Cross-Country Ski Touring
and Snowshoeing	and Snowshoeing
Horseback Riding	Horseback Riding
Canoeing	Canoeing
Sailing	Sailing
Other Nonmotorized	Other Nonmotorized
Watercraft Use	Watercraft Use
Swimming	Swimming
Diving (Skin or Scuba)	Diving (Skin or Scuba)
Fishing	Fishing
Photography	Photography
Camping (Tent, General Day)	Camping (Tent, General Day, Auto,
Snowplay	Trailer, Organization)
Hunting (Big, Small Game;	Hunting (Big, Small Game;
Upland Birds and Waterfowl)	Upland Birds and Waterfowl)
Nature Study	Nature Study
Unguided Walking	Unguided Walking
General Information	General Information
Motor-Driven Ice and	Motor-Driven Ice and
Snowcraft	Snowcraft

ROS

Activity Opportunities* (continued)

Semi-Primitive	Roaded
Motorized	Natural

ORV Touring	ORV Touring
Power Boating	Power Boating
	Picnicking
	Gathering Forest Products
	Downhill Skiing
	Water Skiing and Other
	Water Sports
	Viewing Interpretive Signs
	Resort and Commercial Public
	Services
	Resort Lodging

ROS

SETTING OPPORTUNITIES

Semi-Primitive	Roaded
Motorized	Natural
<p>Area is characterized by a predominatly natural or natural-appearing environment of moderate-to-large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle. Motorized use is permitted.</p>	<p>Area is characterized by a predominatly natural-appearing environments with moderate evidence of the sights and sounds of man. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate, but with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized use is provided for in construction standards and design of facilities.</p>

MANAGEMENT
AREA 13

Grizzly Bear and Timber Management (102,765 acres)

Description

This management area consists of productive forest lands which occur in occupied grizzly bear habitat. These lands will be managed to provide for suitable grizzly bear habitat and regulated timber harvest.

Management Goals

1. Give emphasis to the reduction of grizzly bear mortality in order to help achieve a recovered population.
2. Maintain the habitat requirements of the grizzly.
3. Maintain healthy stands of timber and promote a level of timber growth consistent with the other goals.

Element	Management Practices	Standards and Guidelines
RECREATION	Developed Recreation	A variety of developed recreation activities could be permitted. Some formal recreation development could be enhanced with carefully planned and executed timber management activities.
	Dispersed Recreation	Close coordination with the Grizzly Bear Recovery Team will precede road or trail closures. Recreation activities may be restricted to reduce man/bear confrontations. Winter recreation use, i.e., crosscountry skiing, could be designed to be compatible with grizzly bear requirements.
WILDLIFE AND FISH	Coordination	Grizzly bear coordination with timber harvest and other projects will be emphasized. All activities planned in this management area will be coordinated with the Gallatin National Forest Grizzly Bear Management Policy which provides the details for coordination standards and guidelines. These are found in Appendix B.
	Wildlife Habitat	Structural and nonstructural habitat improvements can be implemented.
RANGE	Range Management	Grazing can occur where it is compatible with grizzly bear management. No investments for intensive livestock use will be made.
TIMBER	Regeneration Harvest Systems	Harvest methods will include even-aged (clearcut, seed tree and shelterwood) and uneven-aged (group selection and individual tree selection) systems.
	Intermediate Harvests	No commercial thinning is planned for regenerated stands in this management area.
	Reforestation	Natural regeneration is the preferred method. Marsh habitat type sites and Douglas-fir sites will most frequently be planted. Minimum stocking standards are: 300 trees per acre on dry to warm sites. 600 trees per acre on moist to cool sites. A natural mix of species is desirable. Site preparation methods may be modified to increase food production for the grizzly bear on appropriate habitat types.
	Timber Stand Improvement	Precommercial thinning is used to provide rapid growth of trees for wildlife or thermal cover.

UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

NOVEMBER 1, 1982

As you probably know, the Rendezvous Ski Area is growing in popularity. This year there has been 30-37 skiers per day using the trails. This significant use plus the use generated by the U.S. Ski Team, Ski Chase Race, Biathlon Race, West Yellowstone school children and various universities, has led us to the conclusion that the area has significant value for cross-country skiing.

The increased use has caused us to become concerned about the area's future. As of today, the only decision reached regarding the shaded area on the attached map is that cross country skiing is the number one management concern. The shaded area includes 4400 acres.

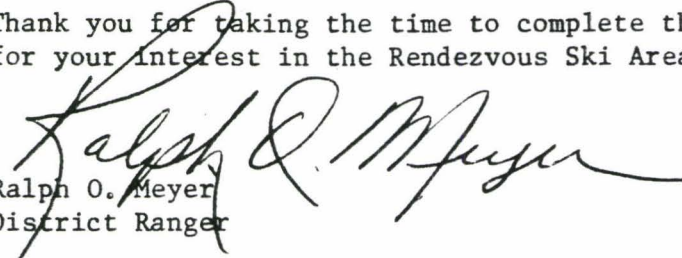
Because of local, regional, and national interest in the Rendezvous area, that decision was not hard to make. The challenge we are now faced with is how should we manage the area so cross-country skiing and related non-motorized winter sports will be maintained and enhanced.

To decide on specific management direction for the area we have identified the following tasks and scheduled them for certain completion dates:

<u>Task</u>	<u>Completion Date</u>
1. Distribute questionnaire and return by...	November 12, 1982
2. Analyze questionnaire	November 19, 1982
3. Host series of workshops	November 30, 1982
4. Analyze workshop input and complete the development plan for the area	February 22, 1983 .

By completing the attached questionnaire and returning it to this office by November 12, 1982, you will have helped complete Task No. 1. We will be inviting you to participate in one of the workshops at a later date.

Thank you for taking the time to complete the questionnaire and thanks also for your interest in the Rendezvous Ski Area.


Ralph O. Meyer
District Ranger

QUESTIONNAIRE
RENDEZVOUS SKI AREA

1. How many days per year do you cross country ski?

2. What percent of the days in question number 1 do you spend on the Rendezvous Ski Trails?

We feel that basic needs exist for the Rendezvous area. Please circle yes or no depending on your feelings regarding the following needs.

A. Trails need to be regularly groomed and tracks set on the following loop trails:

(1) 2½ kilometer	YES	NO
(2) 5 kilometer	YES	NO
(3) 7½ kilometer	YES	NO
(4) 10 kilometer	YES	NO
(5) 12½ kilometer	YES	NO

B. Trails need to be occasionally groomed and tracks set on the following loop trails:

(1) 15 kilometer	YES	NO
(2) 25 kilometer	YES	NO

C. The area should be for the exclusive use by cross-country skiers

(1) Snowmobiles allowed	YES	NO
-------------------------	-----	----

D. Parking is necessary at the trail head

YES	NO
-----	----

E. There is a need for mid-point warming hut

YES	NO
-----	----

F. Signs are needed:

(1) Directional signs	YES	NO
(2) Trail junction signs	YES	NO
(3) Trail name signs	YES	NO
(4) Trail difficulty signs	YES	NO
(5) Distance signs	YES	NO

G. Should there be some trails that are not groomed and tracks set? If you answer yes, list the length these trails should be.

YES	NO
-----	----

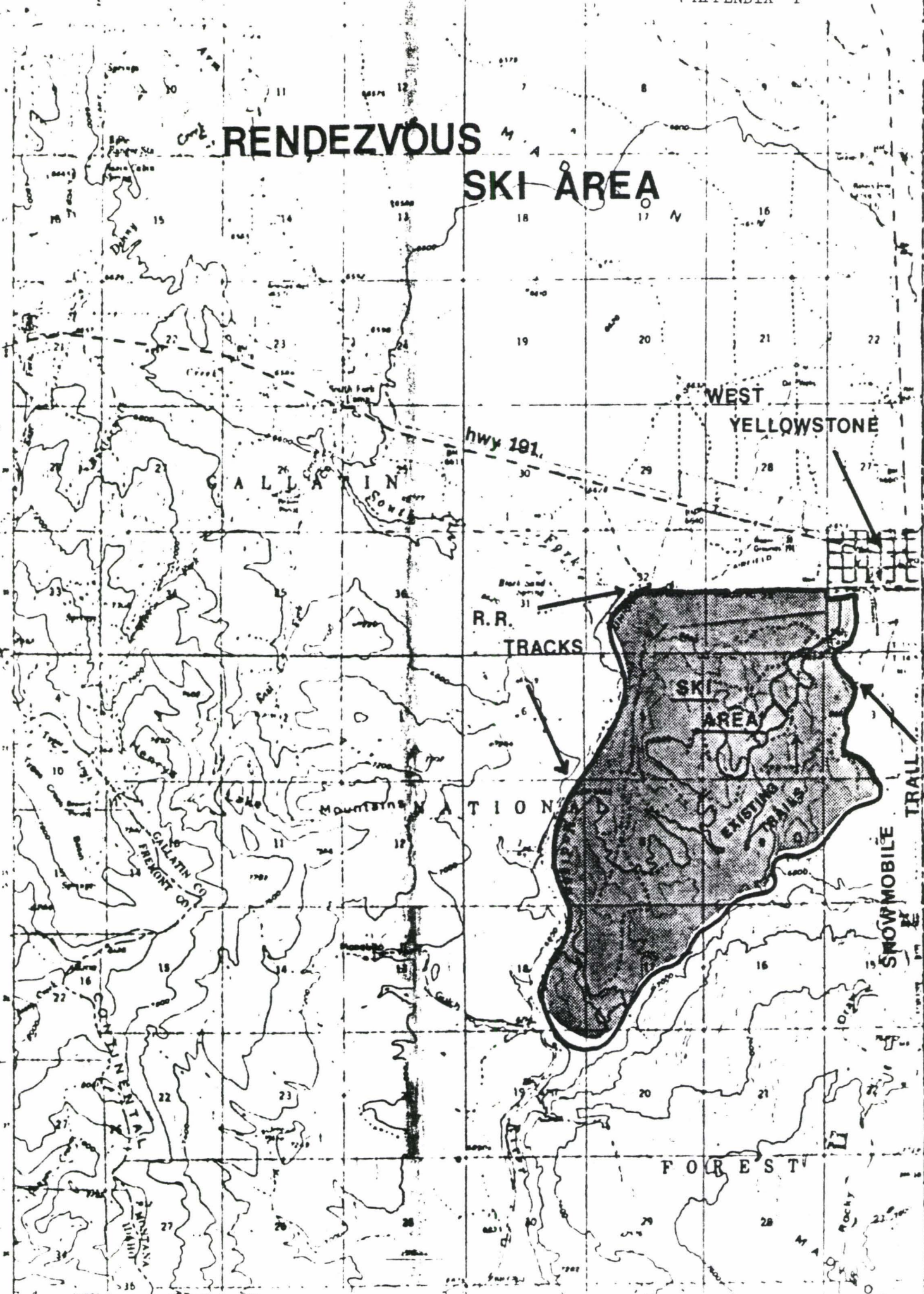
H. If the needs in items A - G became reality would you be willing to pay to ski on the Rendezvous Trails?

YES NO

Please list any additional needs you desire for the Rendezvous area:

Your Name _____

RENDEZVOUS SKI AREA



PUBLIC PARTICIPATION

1982 Workshop

for

Rendezvous Ski Area

Name _____

Address _____

Telephone _____

A. Preference for Forest Condition and Uses

Please read the following descriptions of possible activities and uses that could be included in management of the area. Then select no more than five (5) you would prefer to see exist on the area.

Public Uses and Forest Service Activities

- | | |
|--------------------------------------|-------------------------|
| 1. Watershed management & protection | 13. Road building |
| 2. Camping and picnicing | 14. Pleasure driving |
| 3. Hiking & cross-country skiing | 15. Road closure |
| 4. Snowmobiling | 16. Livestock grazing |
| 5. Motorbiking & ORV's | 17. Forage improvement |
| 6. Horseback riding | 18. Timber harvest |
| 7. Recreation resort | 19. Firewood cutting |
| 8. Grizzly bear management | 20. Post & pole cutting |
| 9. Wildlife habitat improvement | 21. Oil and gas leasing |
| 10. Hunting | 22. Geothermal leasing |
| 11. Wildlife viewing | 23. Mining |
| 12. Outfitting & guiding | |

Preferred Conditions

1. _____
2. _____
3. _____
4. _____
5. _____

B. Identification of Issues

1. What are the issues you feel should be addressed in an environmental assessment for the Rendezvous Ski Area? List the issues that are important to you.

STEP NO. 2

Organize, in priority order, your top five issues and distribute 100 points between the issues on the basis of their importance to you.

Issue No.	Issue Description	<u>RANKING</u>	<u>RATING</u> Please Distribute 100 points
		1	
		2	
		3	
		4	
		5	

SKI TOURING IN THE TWIN CITIES AREA

Charles K. Smith

Park Planner

Metropolitan Council of the Twin Cities Area

TABLE 1SKIER CHARACTERISTICS

(by location of ski area)

Characteristic	All Areas (n=904)	Rural Areas (n=325)	Urbanizing Areas (n=345)	Urban Areas (n=234)
Median Length of Stay (minutes)	95	105	100	75
Median Group Size	2.0	2.1	2.1	1.8
Median Skill Level	2.8	2.9	2.8	2.5
Median Skiing Experience (years)	2.8	2.8	2.9	2.5
Predominant Occupations (% in each)				
- Professional	48	49	51	48
- Technical	9	9	8	8
- Student	11	9	14	18
- Homemaker	9	10	10	7
- Other	23	23	17	24
Median Household Income (1,000s)	19.8	19.8	21.1	18.1
Predominant Age Classes (% in each)				
- Teen	38	39	43	29
- Young Adult	49	48	44	58
- Middle Age	9	10	9	7
- Other	4	3	4	6
Median Distance Traveled (miles)	9.3	14.2	8.4	3.7

SKI TOURING IN THE TWIN CITIES AREA

Charles K. Smith

Park Planner

Metropolitan Council of the Twin Cities Area

TABLE 2

SKIER PREFERENCES, CONSTRIANTS

(by location of ski area)

Elements:	<u>Percent Responding with Each Element at:</u>			
	<u>All Areas (n=904)</u>	<u>Rural Areas (n=325)</u>	<u>Urbanizing Areas (n=345)</u>	<u>Urban Areas (n=234)</u>
1. That <u>increase</u> skier satisfaction:				
- good snow conditions	31	27	31	38
- interesting natural amenities	30	27	34	28
- good trail layout, design	30	27	26	39
- lack of crowds	21	23	17	26
- good support facilities	18	21	18	13
- good trail maintenance	16	20	15	10
- other specific items	16	11	13	26
2. That <u>decrease</u> skier satisfaction:				
- poor trail maintenance	16	19	15	13
- poor snow conditions	15	21	9	15
- poor trail layout, design	14	17	12	12
- no/poor support facilities	13	14	13	10
- restrictive rules, regulations	7	6	8	7
- other specific items	4	3	7	4
3. That influence choice of areas:				
- convenience	45	38	56	38
- others' opinions, decisions	11	13	9	13
- trail layout, design	8	8	7	9
- curiosity, new areas	7	11	7	4
- familiarity	5	5	6	5
- natural amenities	3	3	4	1
- other specific items	10	17	7	5

SKI TOURING IN THE TWIN CITIES AREA

Charles K. Smith

Park Planner

Metropolitan Council of the Twin Cities Area

TABLE 2 (continued)

SKIER PREFERENCES, CONSTRIANTS

(by location of ski area)

Elements:	Percent Responding with Each Element at:			
	All Areas (n=904)	Rural Areas (n=325)	Urbanizing Areas (n=345)	Urban Areas (n=234)
4. That serve as <u>constraints</u> to skiers:				
- no constraints (1)	43	48	39	42
- other interests, responsibilities	32	21	37	40
- lack of equipment	9	10	7	9
- too few ski areas	9	12	6	8
- hours areas are open	6	9	4	6
- fees charged at areas	4	2	5	4
- lack of transportation	4	2	5	5

(1) When asked if they skied about as often as they would like, this percentage of skiers responded "yes."

PARTICIPATION IN WINTER RECREATION ON FEDERAL LANDS

John D. Peine
Heritage Conservation and Recreation Service
Ann Arbor, Michigan

TABLE 3. SOCIOECONOMIC CHARACTERISTICS OF THE GENERAL
POPULATION AND RECREATORS ON THE FEDERAL ESTATE

(percent)

		General Population	Federal Estate Population		
			Winter	Summer	Fall
<u>Age</u>					
12-17	(12-20)*	12	(15)	10	7
18-24	(21-29)	15	(28)	18	15
25-34	(30-44)	21	(31)	25	25
35-44	(45-64)	12	(20)	19	18
45-54	(65 and over)	15	(6)	13	13
55-64		10		9	14
65 and over		14		6	8
<u>Education</u> (highest grade completed by those at least 18 years of age)					
Elementary		4	1	2	1
Junior/Middle		11	5	6	6
High		59	38	48	49
College		21	41	33	36
Graduate		5	14	11	8
<u>Annual Family Income</u>					
Under \$6,000		18	11	7	7
6,000-9,999		23	13	13	13
10,000-14,999		18	18	23	23
15,000-24,999		23	29	34	37
25,000-49,999		9	18	16	15
50,000+		2	4	3	3
<u>Sex</u>					
Female		54	34	42	32
Male		46	66	58	68
<u>Race</u>					
Black		11	2	2	4
White		86	95	95	94
Other		2	2	2	2

*age categories for winter on-site survey only

PARTICIPATION IN WINTER RECREATION ON FEDERAL LANDS

John D. Peine
Heritage Conservation and Recreation Service
Ann Arbor, Michigan

TABLE 4. RECREATIONAL USE PATTERNS ON THE FEDERAL ESTATE

(percent)

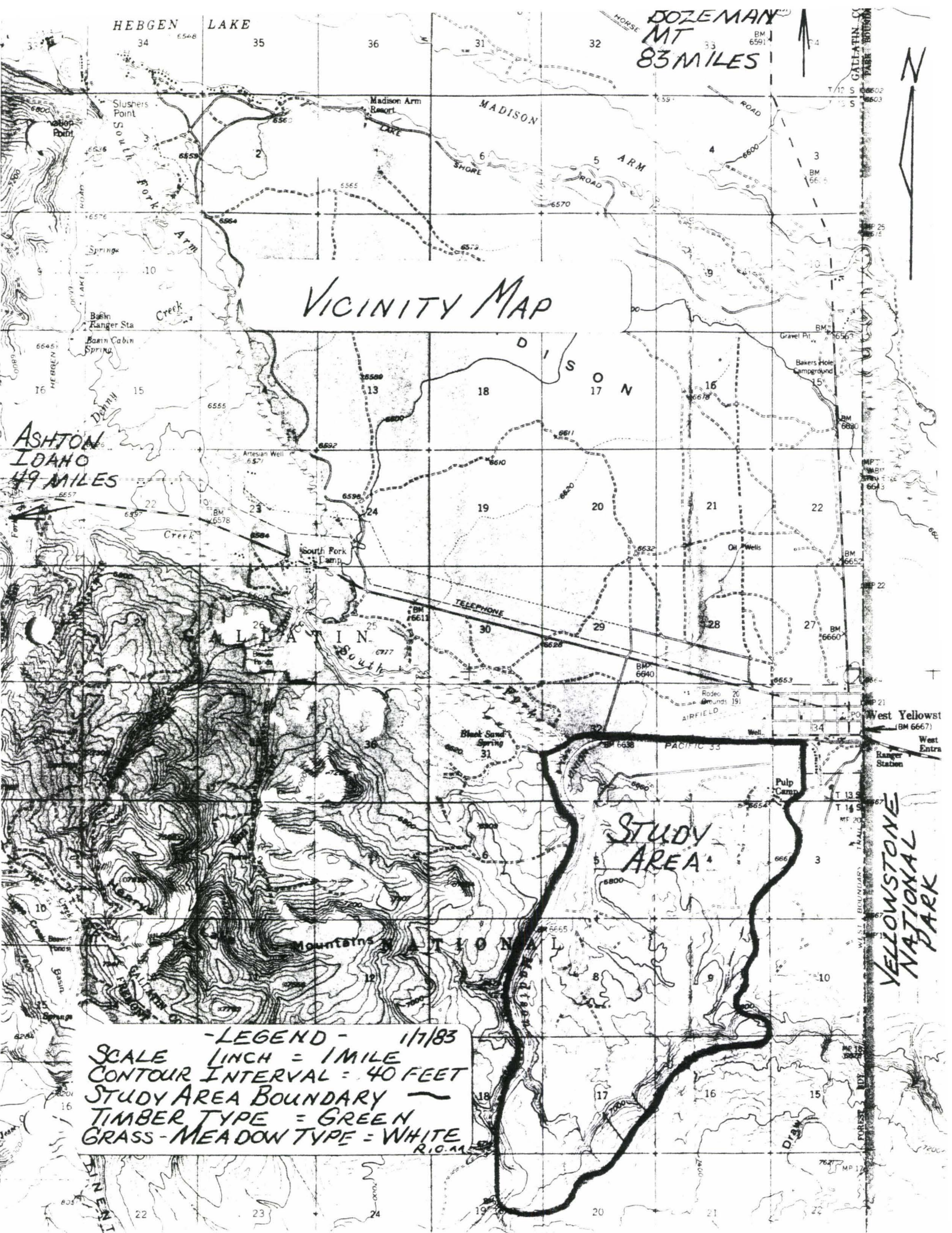
	Season			Agency (summer only)			
	Winter	Fall	Summer	NPS	USFS	COE	FWS
<u>Travel Time</u>							
0-1 hours	NA	32	31	19	24	47	47
2	NA	24	16	10	18	23	15
3-4	NA	21	14	12	19	14	11
5-8	NA	11	14	16	16	9	9
9+	NA	12	25	43	23	7	18
<u>Length of Stay</u>							
0-2 hours	16	16	17	26	7	13	27
2-4 hours	19	14	12	14	8	11	26
4 hours to 1 day	35	21	19	21	16	22	26
Overnight or more	25	48	51	39	69	53	20
<u>Number of Previous Visits</u>							
0	NA	32	45	66	40	25	42
1-2	NA	22	19	15	24	19	17
3-5	NA	15	11	7	14	15	12
6+	NA	31	25	12	22	41	29
<u>Number of People in Party</u>							
1	NA	7	2	2	2	2	2
2	16	36	26	29	27	22	27
3	39	17	16	17	16	14	19
4	11	14	18	18	18	17	18
5+	34	21	35	29	35	43	31

Note: Federal Estate Population

NA - Question not asked during winter survey period.

REFERENCE MATERIAL FOR LAYOUT AND
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2. Cross-Country Skiing Trend Data:
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Floyd H. Newby and William D. Lilley
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3. Growth Potential of the Skier Market in the National Forests
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4. Ski Touring Trails:
Planning for Visual Enjoyment
Boje Turin Nielsen
Tonto National Forest, Arizona
5. U.S. Forest Service and Private Ski Touring Centers -
A Symbiotic Relationship
Paul M. Kihlmure
Green Mountain National Forest
Middlebury, Vermont
6. Cross-Country Skiers: Are They Really Different?
Floyd L. Newby and William D. Lilley
University of Maine
Orono, Maine



HEBGGEN LAKE

DOZEMAN MT
83 MILES

VICINITY MAP

ASHTON
IDAHO
49 MILES

STUDY
AREA

YELLOWSTONE
NATIONAL
PARK

- LEGEND - 1/7/83
SCALE 1 INCH = 1 MILE
CONTOUR INTERVAL = 40 FEET
STUDY AREA BOUNDARY
TIMBER TYPE = GREEN
GRASS-MEADOW TYPE = WHITE

